

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Cancel claims 1-4.

5. (currently amended) A queuing system comprising:

a plurality of interconnected directors, each one of the directors having:

an input/output interface section for receiving information from a source thereof and for returning information to interface to such source; and,

a microprocessor for processing information sent thereto from a remote one of the directors, each one of the microprocessors having a CPU and a CPU memory, such CPU memory storing a queue for inbound information passed to such director for processing therein such information being sent to the remote director from an originating one of the directors; and

wherein each one of the input/output sections includes a queue for outbound information being returned to the source through such originating one of the directors after being processed by the microprocessor of such remote one of the directors ;

wherein each one of the directors includes a translation table, such table storing at a location thereof corresponding to each one of the remote directors a producer index for the queue of such remote director and a consumer index for such one of the remote directors; and;

wherein the location for the table is a function ~~that takes some part of the~~ receiving information in ~~the~~ a queue entry in the queue and derives the location from the ~~into the table therefrom~~.

6. (new) A queuing system, comprising:

at least one input/output (I/O) interface for receiving information from a source thereof and for returning information to interface to such source, such I/O interface having an outbound queue; and

a plurality of processing units coupled to the at least one I/O interface, each one of the processing units being coupled to a corresponding processing unit memory, each one of the processing unit memories having an inbound queue for such coupled processing unit; and

wherein the at least one I/O interface outbound queue stores outbound information being returned to the I/O interface after being processed by one of the processing units.

7. (new) The queuing system recited in claim 6 wherein the I/O interface creates queue indices for storage in the inbound queues of the processor unit memories.

8. (new) The queuing system recited in claim 7 wherein the I/O interface includes a translation table, such table storing at a location a producer index for the plurality of processing units and a consumer index for such plurality of processing units.

9. (new) A queuing system comprising:

a plurality of interconnected directors, each one of the directors having:

an input/output interface section for receiving information from a source thereof and for returning information to interface to such source; and,
a microprocessor for processing information sent thereto from a remote one of the directors, each one of the microprocessors having a CPU and a CPU memory, such CPU memory storing a queue for inbound information passed to such director for processing therein such information being sent to the remote director from an originating one of the directors; and

wherein each one of the input/output sections includes a queue for outbound information being returned to the source through such originating one of the directors

after being processed by the microprocessor of such remote one of the directors.

10 (new) A queuing method, comprising:

- receiving information) at the I/O interface of an originating director;
- creating in the originating director a queue entry;
- translating in the originating director an address of the queue entry into an address for a remote director using a translation table;
- packetizes the queue information for transmission on the packet switching network to the remote director;
- updating in the originating director a producer index for the packetized information;
- translating the updated producer index in the originating director using the translation table;
- packetizing the translated updated producer index; and
- writing the translated producer index for an inbound queue of a remote director rather than storing it in the originating director queue.

11. (new) The queuing method recited in claim 10 wherein:

- the packet is transmitted to the remote director;
- the remote director reads information formerly written into by the originating director;
- the remote director processes the information and updates its consumer index;
- the updated consumer index is sent to the originating director; and
- the originating director receives the consumer index from the remote director and translates the index using the translation table and stores the translated consumer index.